

PROTECTING MARINE WILDLIFE: CASE STUDIES ON SUCCESSFUL COMMUNITY OUTREACH

*Karen Reyna, NOAA, Gulf of the Farallones National Marine Sanctuary
Columbine Culberg, NOAA, National Marine Sanctuary Program
Monica DeAngelis, NOAA, National Marine Fisheries Service
Kelley Higgason, NOAA, Gulf of the Farallones National Marine Sanctuary
Roy W. Lowe, U.S. Fish and Wildlife Service, Oregon Coast National Wildlife Refuge
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INTRODUCTION

Maintaining activities that contribute to the coastal economy is critically dependent on emerging policy choices for the long-term protection and conservation of marine resources. As the amount of people interacting with the marine environment increases, so does the potential for inadvertent negative impacts to marine wildlife and habitats. The impacts from inappropriate behavior, unregulated use and increasing numbers of people interacting with wildlife can have both short and long-term effects on marine species and resources. These interactions can disrupt resting, breeding, feeding, mating rituals, nest prospecting, nesting, and rearing of marine mammals and birds and impact nearshore marine invertebrate populations. Interactions between people and the marine environment can only be fully sustainable when conducted in a non-disruptive, non-lethal manner.

Wildlife managers on the West Coast of the continental United States have developed programs that aim to raise public awareness about coastal and ocean wildlife protection, build wildlife stewardship among stakeholders, identify the potentially harmful human-caused impacts to marine life, discuss the current approaches to minimize these impacts, and address ways we might improve our approaches through effective policy development and implementation of additional outreach and education initiatives. These programs are in various phases of implementation and each has demonstrated success. Four such programs are presented and discussed in this paper. The first program sets the stage on a national level by helping marine managers and the public build ocean stewardship. The three other programs each present a case study for successful partnerships with the community and with other agencies and non-governmental organizations (NGOs).

CREATING A CULTURE OF OCEAN ETIQUETTE

With each person, boat operator or tour group that visits the marine environment comes the need to protect marine resources and the responsibility to engage the public in stewardship of our ocean and coasts. These objectives are the primary focus of the National Ocean Etiquette Program. Ocean Etiquette is an umbrella program developed to promote responsible interaction with marine wildlife and habitats. It involves policy development coupled with education and outreach programs and messages that include

consistent guidelines for ocean visitors. that can be integrated into existing sanctuary programs. The target audience includes anyone who visits, works, or plays in the marine environment, as well as those who visit remotely (i.e. the internet and aquariums).

The Ocean Etiquette program can have far-reaching implications for building awareness and stewardship for marine wildlife and habitats and providing sanctuary visitors with information on the importance of their role in protecting the marine environment from the potential impacts of their presence. The overall goal of the Ocean Etiquette program is to establish messages (including policy) and mechanisms for educating the public on appropriate ways to interact with the marine environment. In general terms, the program seeks to: 1) develop policies and programs regarding responsible interaction with marine wildlife and their habitats; 2) provide consistent sanctuary-wide messages regarding responsible interaction with marine wildlife; 3) promote responsible interaction with marine wildlife and their habitats; and 4) instill a stewardship ethic by providing sanctuary visitors with guidance on their role in protecting marine wildlife and habitats.

Proactive policy, programs and messages that seek to encourage responsible human interactions with wildlife need to be developed in order to fully accomplish program objectives. In order to do this effectively, the Ocean Etiquette program identifies and addresses activities of concern where the impacts from these interactions result in negative effects on the marine wildlife and habitats of the national marine sanctuaries. The first step is to identify and determine the source of an issue. Once the source is identified, staff develop appropriate audience-specific education and outreach programs and messages to address the target audiences.

The Ocean Etiquette program has already launched two nationally significant and successful projects. The first success comes from the creation of the General Marine Wildlife Viewing Guideline symbols and pocket card, which include descriptive pictures showing activities to avoid while recreating or working on the ocean. The second success comes from the Florida Keyes National Marine Sanctuary where the new Dolphin SMART program has been launched. This program is a unique voluntary recognition and education program encouraging responsible viewing of wild dolphins in the Florida Keys National Marine Sanctuary. Program participation is for commercial businesses conducting and booking wild dolphin tours in the Florida Keys. The Dolphin SMART program offers participation incentives for businesses that follow the program criteria and educate their customers about the importance of minimizing wild dolphin harassment. It also includes an important research component that provides insight into the daily lives of the local, wild dolphin population in Key West.

CASE STUDY #1: SUCCESSFUL REDUCTION OF HUMAN DISTURBANCE TO SEABIRDS IN OREGON

The U.S. Fish and Wildlife Service administers more than 1,860 rocks, reefs and islands along the Oregon coast as part of Oregon Islands and Three Arch Rocks National Wildlife Refuges. Together, these refuges support approximately 1 million nesting seabirds and tens of thousands of seals and sea lions. The Oregon coast is highly accessible with U.S. Highway 101, designated as a scenic byway and All American

Road, spanning its entire length. Many ports are scattered along the coast as well, providing watercraft with easy access to the Pacific Ocean.

A primary refuge management concern is preventing human disturbance from adversely impacting nesting seabirds and breeding and loafing seals and sea lions. Seabirds are long-lived animals with low reproductive rates. To breed successfully and maintain populations, seabirds have evolved to nest in areas that are inaccessible to most land predators, such as offshore rocks, islands and steep mainland cliffs dropping to the sea. Seals and sea lions use similar habitats for breeding activities, nursing their pups, healing wounds and sleeping.

All of the refuge rocks, reefs and islands are closed to public access at all times to protect sensitive wildlife. However, many seabird nesting colonies and pinniped haulout sites are located close to shore and in some cases major colonies are attached to the mainland and are easily accessible during low tides. Disturbance events can occur from people illegally accessing the refuges from the mainland or by water, from watercraft approaching sites too closely, and from low-flying aircraft. Impacts of human disturbance exacerbate reductions in breeding success and/or survival by natural (climate or oceanographic conditions, avian predators) or other anthropogenic (e.g., oil spills, fishery mortality) sources.

The U.S. Fish and Wildlife Service has taken a proactive approach to prevent wildlife disturbance through interpretation and environmental education programs which began in 1985. Working in partnership with coastal communities, Friends groups, partners, agencies and volunteers, a variety of educational materials, interpretive features and visitor contact programs have been developed. At locations such as Yaquina Head, Heceta Head and Haystack Rock at Cannon Beach, nesting seabird populations have responded positively to the increased protection that interpretation and education efforts have provided.

CASE STUDY #2: LINKING MONITORING, MANAGEMENT AND OUTREACH TO RESTORE SEABIRD COLONIES IN CENTRAL CALIFORNIA

The Seabird Colony Protection Program is a new program aimed at improving the survival and recruitment of Central California Coast seabird colonies. This program is funded by the recovery of fines for natural resource damages from the 1998 *Command* oil spill. The goal of the program is to reduce human disturbances at seabird breeding and roosting sites from Point Reyes to Point Sur, with an emphasis on species most affected by the *Command* oil spill, through addressing regulatory issues, conservation threats, management needs and outreach and education opportunities.

Gulf of the Farallones National Marine Sanctuary (Farallones sanctuary) is spearheading the program in cooperation with the U.S. Fish and Wildlife Service Common Murre Restoration Project, and other agencies, sanctuaries and non-governmental organizations. An Action Plan was issued in October 2006, which has an organized outreach and education program, coupled with enforcement, management and monitoring. The Action Plan calls for increased public awareness, coupled with coordinated management and

strategic partnerships, to effectively address the source of seabird disturbance.

Through monitoring efforts conducted by U.S. Fish and Wildlife Service, the Program has identified low-flying aircraft, motorized and non-motorized vessels, and humans on foot as the top three types of disturbance to seabird species that nest or roost on cliffs or offshore rocks. The Program aims to reduce these types of human disturbance over a four-year period by working with federal, state, and local agencies as well as non-governmental organizations, scientists and stakeholders.

The Program has formed a multi-agency Technical Advisory Committee and two working groups: an Outreach and Education Working Group and an Enforcement and Coordinated Management Working Group. Both working groups include participation from stakeholders including pilots, boaters and interested public. Using feedback and guidance from the working groups, the Program has started developing outreach materials that target the most common causes of human disturbance.

The success of the Program will be measured using the following benchmarks to assess performance: 1) document types and levels of human disturbance at Central California Coast seabird colonies and any changes occurring over time as the Program is implemented; 2) increase seabird disturbance information exchange at key events/venues; 3) increase awareness among organized users who impact nest prospecting, pre-breeding, roosting, nesting and breeding seabird colonies; 4) increase Central California Coast seabird protection coordination among agencies, non-governmental organizations, researchers and stakeholders; 5) increase the number of agencies, non-governmental organizations and interested public reporting incidents of seabird disturbance; and 6) document success levels of the Program through colony monitoring/surveillance.

CASE STUDY #3: WORKING WITH THE FISHING COMMUNITY TO USE NON-LETHAL DETERRENCE OF PACIFIC HARBOR SEALS AND CALIFORNIA SEA LIONS

Since the passage of the Marine Mammal Protection Act (MMPA) in 1972, California sea lion and Pacific harbor seal populations have recovered to healthy levels. The increased abundance has been accompanied by a growing number of interactions with humans, raising concerns by West Coast private citizens including private property owners, dock and marina operators, and commercial and recreational fishers, as well as government officials who are seeking ways to protect property, fishing gear, and catch from damage by sea lions and seals.

The MMPA generally prohibits the harassment, hunting, capturing, or killing of marine mammals, or any attempt to engage in such activities. However, the 1994 Amendments to the MMPA provided new authority to U.S. citizens to deter marine mammals from damaging fishing gear, catch, and private property, so long as the methods used do not result in the death or serious injury of an animal. The Amendments to the MMPA also required National Marine Fisheries Service (NMFS) to publish guidelines for non-lethally deterring marine mammals.

NMFS' Southwest Regional Office (SWR) and Northwest Region Office (NWR) are currently working with communities to test techniques to exclude sea lions from hauling out on docks and bait receivers, in marinas and in canal and lock complexes (*e.g.*, with fish passageways like Ballard Locks). SWR hosted a workshop in December 2005, to gather information on marine mammal damage of public and private property, and to discuss options for deterring problem animal, in compliance with the MMPA. In attendance were marine biologists, managers, researchers, law enforcement officers, NMFS General Counsel, representatives from several state fish and wildlife agencies, universities, the Pacific States Marine Fisheries Commission, the Marine Mammal Commission, marina operators, city and port officials, and representatives from the commercial fishing industry. The following day, U.S. and Canadian government officials and members of Scientific Review Groups (advisory bodies required by the MMPA) also held a meeting. Officials recognized the urgent need to respond to impacted communities and agreed to develop public-friendly preliminary guidance to be posted on agency web pages, proceed with the federal rulemaking process, and continue coordinating with impacted coastal communities in the U.S., Canada, and Mexico.

SWR is currently developing formal guidelines and regulations for safely and legally deterring marine mammals. That guidance is not yet available, so in the interim, SWR and NWR are providing advice through their websites for deterring Pacific harbor seals and California sea lions. The SWR website is: <http://swr.nmfs.noaa.gov/deter/index.htm>. The website includes information on deterrence methods and methods to be avoided to reduce the risk of causing "serious injury" to an animal. SWR has been working with stakeholders to develop and test deterrence methods, and several methods listed on the website have demonstrated short-term success.

CONCLUSION

In order for human interaction with marine resources to be sustainable, coastal and marine managers and interested stakeholders need to work together to determine "best practices" and appropriate policies, and effectively communicate these to ocean users and the public. The Ocean Etiquette program provides ocean managers with consistent messages designed to reach stakeholders nationwide. The three case studies presented in this paper demonstrate that working in partnership with the local community and stakeholders to design and implement programs and projects that minimize harm to marine wildlife results in building stewardship for our ocean resources.

Karen Reyna
Gulf of the Farallones National Marine Sanctuary
991 Marine Dr., The Presidio
San Francisco, CA 94129
Phone: (415) 561-6622
E-mail: karen.reyna@noaa.gov